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Despite the profound features of polylactide (PLA) such as being originated from biomass and its biodegradability, PLA has several drawbacks that limit its use in di erent applications. A series of these drawbacks could be according to its glass transition temperature (Tg = around 60°C) and its very slow crystallization kinetics. In applications where the service temperature require to be below 60°C, PLA behaves as a very brittle polymer, whereas in those cases where the service temperature should be much wider beyond 60°C, PLA can easily be de ected by heat because the degree of crystallinity is not high enough to provide the required rigidity. Moreover, a series of drawbacks originate from the PLA's melt conditions. Due to the low melt strength of PLA followed by its slow crystallization rate, forming the nal products with required shape is not easy. Similar scenario exists in processing of PLA/gas mixture to form high-quality foamed structures. In this work, it is shown that the enhancement of PLA's crystallization kinetics could signi cantly enhance its processability, formability and foamability, and could widen its service temperature beyond its Tg, and further can improve the mechanical properties of its nal products. Furthermore, blending PLA with other biopolymers with high melt strength, high toughness and ductility could improve the melt strength and processability of PLA, compensate its brittleness and enhance its mechanical properties. ese approaches provide new routes to extend the PLA's usage in much wider commodity applications.

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